

WE CLAIM:

1. A two-cycle engine, comprising:

a cylinder in which is formed a combustion chamber that
is delimited by a reciprocating piston that via a connecting rod drives a
crankshaft that is rotatably mounted in a crankshaft, wherein in
predetermined positions of said piston said crankcase communicates
with said combustion chamber via transfer channels wherein said
cylinder has an outlet leading out of said combustion chamber, wherein
an intake duct leads into said crankcase for a supply of fuel, wherein
an air duct is provided for a supply of substantially fuel-free air, and
wherein said air duct, in the vicinity of said cylinder, is divided into two
branches;

a connecting flange formed on said cylinder, wherein said
two branches of said air duct open out at air openings of said
connecting flange;

a cover disposed on said connecting flange, wherein said
cover extends over said air openings; and

a flow divider disposed or formed on said connecting
flange, wherein said flow divider projects beyond a plane of said
connecting flange and into said cover, and wherein said flow divider
divides an air flow in said air duct to said two branches.

2. A two-cycle engine according to claim 1, wherein said cover, on a side facing away from said connecting flange, is provided with a connection for said air duct.

3. A two-cycle engine according to claim 2, wherein said flow divider is disposed in a projection surface of said air duct connection toward said plane of said connecting flange.

4. A two-cycle engine according to claim 2, wherein said air duct connection is offset toward said combustion chamber relative to at least one of said air openings in a direction of a longitudinal axis of said cylinder.

5. A two-cycle engine according to claim 4, wherein said air duct connection is offset relative to both of said air openings of said connecting flange.

6. A two-cycle engine according to claim 1, wherein said flow divider forms a guide for said cover.

7. A two-cycle engine according to claim 1, wherein said plane of said connecting flange forms a wall portion of said air duct.

8. A two-cycle engine according to claim 1, wherein said connecting flange has a recess that forms a wall portion of said air duct.

9. A two-cycle engine according to claim 2, wherein said intake duct opens out at said connecting flange at an intake opening over which extends said cover, and wherein on a side that faces away

from said connecting flange said cover is provided with a connection for said intake duct.

10. A two-cycle engine according to claim 9, wherein said air duct connection and said intake duct connection are oriented relative to one another in said cover approximately in a direction toward a longitudinal axis of said cylinder, and wherein said air duct connection is disposed on a side of said intake duct connection that faces said combustion chamber.

11. A two-cycle engine according to claim 9, wherein when viewed in a circumferential direction of said cylinder, said air openings are disposed on opposite sides of said intake openings of said intake duct.

12. A two-cycle engine according to claim 9, wherein a lower edge of said air openings on said connecting flange are offset relative to an upper edge of said intake opening in a direction toward said crankcase.

13. A two-cycle engine according to claim 1, wherein said cover is provided with at least one shoulder that projects into an opening in said connecting flange.

14. A two-cycle engine according to claim 1, wherein said cover is screwed onto said connecting flange of said cylinder, or is connected to said connecting flange via welding, soldering, or bonding.

15. A two-cycle engine according to claim 1, wherein in predetermined positions of said piston, each of said branches of said air

duct is connected via a piston window with at least one of said transfer channels.